

**CLAIMS**

What is claimed is:

- 1 1. A method, comprising:  
2 receiving information over a communications network;  
3 retrieving validation rules from a rules library stored in a memory device; and  
4 determining computer data validity by applying the retrieved validation rules to the  
5 information.
- 1 2. The method of claim 1, further comprising highlighting information determined to be  
2 invalid by the validation rules.
- 1 3. The method of claim 1, wherein validation rules are provided to a client.
- 1 4. The method of claim 1, wherein validation rules are provided to a server.
- 1 5. The method of claim 1, wherein validation rules are imbedded into a web page.
- 1 6. The method of claim 1, wherein validation rules are executable both on a client and  
2 server.
- 1 7. A system, comprising:  
2 means for receiving information over a communications network;  
3 means for retrieving validation rules from a rules library stored in a memory device;  
4 and  
5 means for determining computer data validity by applying the retrieved validation  
6 rules to the information.
- 1 8. The system of claim 7, further comprising means for highlighting information  
2 determined to be invalid by the validation rules.

- 1 9. The system of claim 7, wherein validation rules are provided to a client.
- 1 10. The system of claim 7, wherein validation rules are provided to a server.
- 1 11. The system of claim 7, wherein validation rules are imbedded into a web page.
- 1 12. The system of claim 7, wherein validation rules are executable both on a client and  
2 server.
- 1 13. Computer executable software code stored on a computer readable medium, the code,  
2 comprising:  
3 code for receiving information over a communications network;  
4 code for retrieving validation rules from a rules library stored in a memory device;  
5 and  
6 code for determining computer data validity by applying the retrieved validation rules  
7 to the information.
- 1 14. The medium of claim 13, further comprising code for highlighting information  
2 determined to be invalid by the validation rules.
- 1 15. The medium of claim 13, wherein validation rules are provided to a client.
- 1 16. The medium of claim 13, wherein validation rules are provided to a server.
- 1 17. The medium of claim 13, wherein validation rules are imbedded into a web page.
- 1 18. The medium of claim 13, wherein validation rules are executable both on a client and  
2 server.

- 1 19. An apparatus, comprising:
- 2 a memory device having at least one region for storing executable program code; and
- 3 a processor, disposed in communication with the memory device, for executing the
- 4 program code stored in the memory device, wherein the program code, further comprising:
- 5 code to receive information over a communications network;
- 6 code to retrieve validation rules from a rules library stored in a memory
- 7 device;
- 8 code to determine computer data validity by applying the retrieved validation
- 9 rules to the information.
- 1 20. The apparatus of claim 19, further comprising code to highlight information
- 2 determined to be invalid by the validation rules.
- 1 21. The apparatus of claim 19, wherein validation rules are provided to a client.
- 1 22. The apparatus of claim 19, wherein validation rules are provided to a server.
- 1 23. The apparatus of claim 19, wherein validation rules are imbedded into a web page.
- 1 24. The apparatus of claim 19, wherein validation rules are executable both on a client
- 2 and server.
- 1 25. A method, comprising:
- 2 identifying data types requiring validation; and
- 3 providing validation rules stored in a memory device for the associated data types
- 4 from a rules library.
- 1 26. The method of claim 25, wherein validation rules are provided to a client.
- 1 27. The method of claim 25, wherein validation rules are provided to a server.

1 28. The method of claim 25, wherein validation rules are imbedded into a web page.

1 29. The method of claim 25, wherein validation rules are executable both on a client and  
2 server.

1 30. A system, comprising:  
2 means for identifying data types requiring validation; and  
3 means for providing validation rules stored in a memory device for the associated  
4 data types from a rules library.

1 31. The system of claim 30, wherein validation rules are provided to a client.

1 32. The system of claim 30, wherein validation rules are provided to a server.

1 33. The system of claim 30, wherein validation rules are imbedded into a web page.

1 34. The system of claim 30, wherein validation rules are executable both on a client and  
2 server.

1 35. Computer executable software code stored on a computer readable medium, the code,  
2 comprising:

3 code for identifying data types requiring validation; and

4 code for providing validation rules stored in a memory device for the associated data  
5 types from a rules library.

1 36. The medium of claim 35, wherein validation rules are provided to a client.

1 37. The medium of claim 35, wherein validation rules are provided to a server.

1 38. The medium of claim 35, wherein validation rules are imbedded into a web page.

1 39. The medium of claim 35, wherein validation rules are executable both on a client and  
2 server.

- 1 40. An apparatus, comprising:
- 2 a memory device having at least one region for storing executable program code; and
- 3 a processor, disposed in communication with the memory device, for executing the
- 4 program code stored in the memory device, wherein the program code, further comprising:
- 5 code to identify data types requiring validation;
- 6 code to provide validation rules stored in a memory device for the associated
- 7 data types from a rules library.
- 1 41. The apparatus of claim 40, wherein validation rules are provided to a client.
- 1 42. The apparatus of claim 40, wherein validation rules are provided to a server.
- 1 43. The apparatus of claim 40, wherein validation rules are imbedded into a web page.
- 1 44. The apparatus of claim 40, wherein validation rules are executable both on a client
- 2 and server.
- 1 45. A method, comprising:
- 2 providing a rules library and an initial parent rule stored in a memory device; and
- 3 building validation rules by subclassing members of a rules library class hierarchy.
- 1 46. The method of claim 45, further comprising storing subclassed validation rules in a
- 2 rules library.
- 1 47. The method of claim 45, wherein the subclassed validation rules inherit validation
- 2 logic from a parent rule.
- 1 48. The method of claim 45, wherein validation rules are associated with data types.
- 1 49. The method of claim 45, wherein validation rules are imbedded into a web page.

1 50. The method of claim 45, wherein validation rules are executable both on a client and  
2 server.

1 51. A system, comprising:  
2 means for providing a rules library and an initial parent rule stored in a memory  
3 device; and  
4 means for building validation rules by subclassing members of a rules library class  
5 hierarchy.

1 52. The system of claim 51, further comprising means for storing subclassed validation  
2 rules in a rules library.

1 53. The method of claim 51, wherein the subclassed validation rules inherit validation  
2 logic from a parent rule.

1 54. The system of claim 51, wherein validation rules are associated with data types.

1 55. The system of claim 51, wherein validation rules are imbedded into a web page.

1 56. The system of claim 51, wherein validation rules are executable both on a client and  
2 server.

1 57. Computer executable software code stored on a computer readable medium, the code,  
2 comprising:

3 code for providing a rules library and an initial parent rule stored in a memory device;

4 and

5 code for building validation rules by subclassing members of a rules library class  
6 hierarchy.

1 58. The medium of claim 57, further comprising code for storing subclassed validation  
2 rules in a rules library.

1 59. The method of claim 57, wherein the subclassed validation rules inherit validation  
2 logic from a parent rule.

1 60. The medium of claim 57, wherein validation rules are associated with data types.

1 61. The medium of claim 57, wherein validation rules are imbedded into a web page.

1 62. The medium of claim 57, wherein validation rules are executable both on a client and  
2 server.

1 63. An apparatus, comprising:  
2 a memory device having at least one region for storing executable program code; and  
3 a processor, disposed in communication with the memory device, for executing the  
4 program code stored in the memory device, wherein the program code, further comprising:  
5 code to provide a rules library and an initial parent rule stored in a memory  
6 device;  
7 code to build validation rules by subclassing members of a rules library class  
8 hierarchy.

1 64. The apparatus of claim 63, further comprising code to store subclassed validation  
2 rules in a rules library.

1 65. The method of claim 63, wherein the subclassed validation rules inherit validation  
2 logic from a parent rule.

1 66. The apparatus of claim 63, wherein validation rules are associated with data types.

1 67. The apparatus of claim 63, wherein validation rules are imbedded into a web page.

1 68. The apparatus of claim 63, wherein validation rules are executable both on a client  
2 and server.

1 69. A method, comprising:  
2 marking data types for associated validation rules from a rules library stored in a  
3 memory device; and  
4 providing validation marked data types.

1 70. The method of claim 69, further comprising building forms with validation rules  
2 associated with marked data types.

1 71. The method of claim 69, further comprising storing forms with validation rules  
2 associated with marked data types.

1 72. The method of claim 69, further comprising providing forms with validation rules  
2 associated with marked data types over a communications network.

3 73. The method of claim 69, wherein validation rules are imbedded into a web page.

1 74. The method of claim 69, wherein validation rules are executable both on a client and  
2 server.

1 75. A system, comprising:  
2 means for marking data types for associated validation rules from a rules library  
3 stored in a memory device; and  
4 means for providing validation marked data types.

1 76. The system of claim 75, further comprising means for building forms with validation  
2 rules associated with marked data types.

1 77. The system of claim 75, further comprising means for storing forms with validation  
2 rules associated with marked data types.

1 78. The system of claim 76, further comprising means for providing forms with  
2 validation rules associated with marked data types over a communications network.

3 79. The system of claim 75, wherein validation rules are imbedded into a web page.

1 80. The system of claim 75, wherein validation rules are executable both on a client and  
2 server.

1 81. Computer executable software code stored on a computer readable medium, the code,  
2 comprising:

3 code for marking data types for associated validation rules from a rules library stored  
4 in a memory device; and

5 code for providing validation marked data types.

1 82. The medium of claim 81, further comprising code for building forms with validation  
2 rules associated with marked data types.

1 83. The medium of claim 81, further comprising code for storing forms with validation  
2 rules associated with marked data types.

1 84. The medium of claim 82, further comprising code for providing forms with validation  
2 rules associated with marked data types over a communications network.

3 85. The medium of claim 81, wherein validation rules are imbedded into a web page.

1 86. The medium of claim 81, wherein validation rules are executable both on a client and  
2 server.

- 1 87. An apparatus, comprising:
- 2 a memory device having at least one region for storing executable program code; and
- 3 a processor, disposed in communication with the memory device, for executing the
- 4 program code stored in the memory device, wherein the program code, further comprising:
- 5 code to mark data types for associated validation rules from a rules library
- 6 stored in a memory device;
- 7 code to provide validation marked data types.
- 1 88. The apparatus of claim 87, further comprising code to build forms with validation
- 2 rules associated with marked data types.
- 1 89. The apparatus of claim 87, further comprising code to store forms with validation
- 2 rules associated with marked data types.
- 1 90. The apparatus of claim 88, further comprising code to provide forms with validation
- 2 rules associated with marked data types over a communications network.
- 1 91. The apparatus of claim 87, wherein validation rules are imbedded into a web page.
- 1 92. The apparatus of claim 87, wherein validation rules are executable both on a client
- 2 and server.

- 1 93. A method, comprising:
- 2 identifying browser capability;
- 3 choosing a validation deployment, wherein the validation deployment comprising:
- 4 determining if a browser supports regular expressions, and if so, providing
- 5 validation rules to a client;
- 6 determining if the browser supports non regular expression language, and if
- 7 so, providing non regular expression language information validation;
- 8 determining if the browser does not support non regular expression language,
- 9 and if not, providing regex enabled validation on a server;
- 10 providing the browser with appropriate network location and validation rules;
- 11 obtaining information from a user; and
- 12 validating information with appropriate validation rules stored in a memory device.
- 1 94. The method of claim 93, wherein validation rules are imbedded into a web page.
- 1 95. The method of claim 93, wherein validation rules are executable both on a client and
- 2 server.

1 96. A system, comprising:

2 means for identifying browser capability;

3 means for choosing a validation deployment, wherein the validation deployment  
4 comprising:

5 means for determining if a browser supports regular expressions, and if so,  
6 providing validation rules to a client;

7 means for determining if the browser supports non regular expression  
8 language, and if so, providing non regular expression language information validation;

9 means for determining if the browser does not support non regular expression  
10 language, and if not, providing regex enabled validation on a server;

11 means for providing the browser with appropriate network location and validation  
12 rules;

13 means for obtaining information from a user; and

14 means for validating information with appropriate validation rules stored in a memory  
15 device.

1 97. The system of claim 96, wherein validation rules are imbedded into a web page.

1 98. The system of claim 96, wherein validation rules are executable both on a client and  
2 server.

- 1 99. Computer executable software code stored on a computer readable medium, the code,  
2 comprising:  
3 code for identifying browser capability;  
4 code for choosing a validation deployment, wherein the validation deployment  
5 comprising:  
6 code for determining if a browser supports regular expressions, and if so,  
7 providing validation rules to a client;  
8 code for determining if the browser supports non regular expression language,  
9 and if so, providing non regular expression information validation;  
10 code for determining if the browser does not support non regular expression  
11 language, and if not, providing regex enabled validation on a server;  
12 code for providing the browser with appropriate network location and validation  
13 rules;  
14 code for obtaining information from a user; and  
15 code for validating information with appropriate validation rules stored in a memory  
16 device.
- 1 100. The medium of claim 99, wherein validation rules are imbedded into a web page.
- 1 101. The medium of claim 99, wherein validation rules are executable both on a client and  
2 server.

1 102. An apparatus, the code, comprising:  
2 a memory device having at least one region for storing executable program code; and  
3 a processor, disposed in communication with the memory device, for executing the  
4 program code stored in the memory device, wherein the program code, further comprising:  
5 code to identify browser capability;  
6 code to choose a validation deployment, wherein the validation deployment  
7 comprising:  
8 code to determine if a browser supports regular expressions, and if so,  
9 provide validation rules to a client;  
10 code to determine if the browser supports non regular expression  
11 language, and if so, provide non regular expression information validation;  
12 code to determine if the browser does not support non regular  
13 expression language, and if not, provide regex enabled validation on a server;  
14 code to provide the browser with appropriate network location and validation  
15 rules;  
16 code to obtain information from a user; and  
17 code to validate information with appropriate validation rules stored in a  
18 memory device.

1 103. The apparatus of claim 102, wherein validation rules are imbedded into a web page.

1 104. The apparatus of claim 102, wherein validation rules are executable both on a client  
2 and server.